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Date: December 16, 2013

Mr. Richard W. Hancock, P.E.
Manager, Project Development and Environmental
Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

SUBJECT: EPA Review Comments of the Federal Supplemental Draft Environmental Impact Statement for the Proposed US 17, Hampstead Bypass and Military Cutoff road Extension, New Hanover and Pender Counties, TIP Nos.: R-3300 and U-4751; CEQ No.: 20130317; COE-E40842-NC

Dear Mr. Hancock:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject document and is providing comments in accordance with Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The North Carolina Department of Transportation (NCDOT) and the U.S. Army Corps of Engineers (USACE) propose to construct a 17.8 mile multi-lane facility on new location with an additional interchange for the previously selected US 17 alternative and potentially 5.2 miles of recommended service roads.

EPA is a participating member of the NEPA/Section 404 Merger team for this proposed project. EPA provided review comments to the DEIS on November 15, 2011, and rated the document alternatives with Environmental Objections (EO-2), for Alternatives E-H+M1, O+M2, R+M1, U+M1, and U+M2. EPA rated Alternative U as Environmental Concerns (EC-2). On February 28, 2012, EPA provided supplemental DEIS report comments concerning the proposed impacts to public water supply groundwater wells associated with the proposed project. Following the Merger team Least Environmentally Damaging Preferred Alternative (LEDPA) /Concurrence Point 3 meeting held on May 15, 2013, for the US 17 portion of the project, the NCDOT and USACE proposed substantial modifications to E-H+M1. The NCDOT and USACE preferred alternative is now M1+E-H Option 6TR. EPA provided an NEPA/Section 404 Merger process abstention brief on May 15, 2013, outlining the continued environmental concerns regarding the E-H Alternative and the additional modifications being made to the project design. EPA's additional technical comments are attached in Attachment A to the letter (See Attachment A). EPA has also provided additional information concerning EPA's activities in the Merger team process in another attachment (See Attachment B).

In summary, EPA has continued environmental concerns (EC) for Alternative M1 for the Military Cutoff Road Extension portion of the project due to potential impacts to the wellhead

protection area for the Nano Water Treatment facility. EPA recognizes the measures taken to avoid direct impacts to several of the wellheads by shifting the alignment for M1. However, the proposed project commitments for future coordination with the Cape Fear Public Utility Authority with respect to potential future contamination issues to the wellhead protection area resulting from a hazardous material spill should be strengthened. For the preferred alternative, M1+E-H with Option 6TR, substantial impacts remain to: jurisdictional wetlands and streams including ORW and HQW, historic resources, noise receptors, prime farmlands, endangered species, terrestrial forests, residences and businesses, cemeteries, the Pender County Recycling Center, the Topsail High wastewater treatment plant, and hazardous material sites. Therefore, for Alternative E-H and for Alternative M1+E-H with option 6TR we continue have environmental objections. We request that the FEIS provide additional information on noise receptor impacts, prime farmland, endangered species, compensatory mitigation for wetlands and streams. The inclusion of 5.2 miles of service roads to the preferred alternative should also be made clear to the Merger team prior to the issuance of the FEIS. See Attachment A for further discussions of issues that should be addressed in the FEIS and ROD.

Please contact Mr. Christopher Militscher of my staff at miliischer.chris@epa.gov or 404-562-9512 if you have any questions concerning these comments.

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Environmental Accountability

Attachments A and B

Cc: S. McClendon, USACE, w/attachments
B. Shaver, USACE, w/attachments
M. Herndon, NCDENR w/attachments
G. Jordan, USFWS w/attachments

Attachment A
Detailed Technical Comments
Supplemental Draft Environmental Impact Statement
US 17, Hampstead Bypass and Military Cutoff Road Extension, New Hanover and Pender
Counties, TIP Nos.: R-3300 and U-4751

Purpose of this Document

There are several statements in this section of Supplemental Draft Environmental Impact Statement (SDEIS) that should be clarified. On page 1-1, the SDEIS states: "*The Merger Team's LEDPA decision involves the selection of a corridor, not a specific project design.*" The LEDPA decision is based upon the alternative's impacts from the proposed project design within the corridor plus 25 feet for construction slope stakes. The corridor (typically 500 to 1,000 feet for new location multi-lane highways) preliminary impacts are utilized in the Merger process for Concurrence Point (CP) 2, selection of the Detailed Study Alternatives (DSAs). During the CP 4A meeting, EPA's Merger Team representative clearly articulated this issue and that the NCDOT's and USACE's proposed changes to the LEDPA, including the addition of a new interchange and increasing from a 4-lane to a 6-lane facility, the need for additional right-of-way beyond what was shown at the LEDPA meeting, and the substantial increases to jurisdictional resources, required a re-assessment of the July 2011 DEIS. The NCDOT's and USACE's proposed design changes following the corridor/design public hearing were presented to the Merger team after the LEDPA had been selected by the Merger team agencies (Please refer to the 2005 Merger Guidance Manual, Process I – Projects on New Location, pages 11-12).

The SDEIS also 'presents information' related to potential service road locations currently under study for Military Cutoff road Extension and US 17 Hampstead Bypass. There are additional jurisdictional impacts associated with these proposed service roads that were not disclosed or addressed during the May 2012 LEDPA concurrence meeting. Some of these service road impacts are substantial, including the 2 service roads NCDOT and the USACE currently propose as being 'cost-effective': SR 1 and SR 4. SR 4 results in an additional 2.71 acres of wetland impacts, 1,170 linear feet of stream impacts, and 1.17 acres of terrestrial forest impacts. There is no rationale provided as why these 2 service roads are cost-effective while the other 12 service roads are not cost-effective. Section 4.4 of the SDEIS explains that potential service road locations could not be identified ("*In the case of this project, potential service road locations could not be identified and the service road studies conducted in time to discuss this information with the Merger team.*") but does not provide the appropriate reason 'why' this impact information was not available at the CP 4A meeting.

This section of the document refers the reader to Section 4.5 and the 'Validity of Merger Team LEDPA Decision'. Table 5 in this section of the SDEIS provides a generalized table of impacts comparing the DEIS DSA. However, the second footnote of this table indicates that relocations ('displacements') were calculated to reflect changes associated with the northern interchange Option 6TR only. It also states that changes in impacts as a result of avoidance and minimization measures elsewhere along the project are not included in the table. There is no

rationale why this method of comparing impacts was performed in this manner. Moreover, as stated: *"The table shows an increase or decrease in impacts to environmental features for the detailed study alternatives with Option 6TR incorporated into the design of each alternative"*. This assessment method of comparing the LEDPA to the other DSAs with the inclusion of the additional interchange and 6-lanes into each of the other DSAs is potentially pre-decisional. Alternative U had other interchanges (5 between Futch Creek Road and Jenkins Road) in its design that could alter the traffic projections for north of Topsail High School.

Section 4.5 also states that the changes now proposed for DSA M1+E-H with Option 6TR does not invalidate the Merger Team's concurrence on that alternative as LEDPA. This claim is not supported by the 2005 Merger Guidance Manual, Concept of Concurrence, on page 2, where a re-evaluation of concurrence might include a 'discovery of an impact, resource, or additional information that was not previously identified or did not previously exist'. Section 4.5 also states: *"....that the final decision on LEDPA will not be made until after the USACE has applied the Section 404(b)(1) guidelines to a submitted permit application and completed the public interest review process for the proposed project."* The statement on Page 4-5 concerning the final selection by the USACE of either M1+E-H with Option 6TR or the original M1+E-H as the future permitted LEDPA should be clarified in the FEIS.

Changes to the DEIS Impacts

Jurisdictional Wetlands and Streams

Table S-1 includes the comparison of DSA M1+E-H with Option 6TR or the original M1+E-H from the DEIS. This table includes the avoidance and minimization efforts applied to the LEDPA (original M1+E-H). It should be noted that from the Merger team LEDPA decision, the impacts after avoidance and minimization actually increased for wetlands (248.15 acres vs. 246.05) and decreased for streams (22,379 linear feet vs. 24,531 linear feet). It should also be noted from Table S-1 that residential and business relocations significantly were reduced by avoidance and minimization measures from the DEIS M1+E-H LEDPA to the M1+E-H with Option 6TR (Preferred) alternative from 61 and 84 vs. 53 and 39, respectively.

Table S-1 also includes the additional impacts from 5.2 miles of service roads S1 and S4 resulting in additional impacts to jurisdictional resources. Wetland impacts increased 16.89 acres and stream impacts 1,343 linear feet. There are no residential or business relocations associated with the proposed service roads.

For the total project as proposed, wetland impacts are now estimated at 265.04 acres for 17.82 miles of multi-lane highways and 5.2 miles of service roads. Stream impacts in total have increased from the LEDPA to 23,722 linear feet. Based upon Tier I Merger Performance Measure baseline data from 2004-2011, the current project's preferred alternative has 11.52 acres of wetland impacts per mile or more than 4 times (400%) the accumulated baseline impact of 2.7 acres/mile for a New Location Eastern project. Similarly, the 23,722 linear feet of stream impacts or approximately 1,000 linear feet/mile is more than 3 times (300%) the typical Eastern Merger stream impact per mile of approximately 300 linear feet/mile. The 11.52 acres/mile of wetlands impact and the 1,000 linear feet/mile of stream impact represent one of the highest

observed Eastern project jurisdictional impacts per mile for a roadway facility. The sufficiency of the effort to avoid and minimize these jurisdictional impacts needs to be further confirmed.

The proposed project impacts Outstanding Resource Waters (ORW) including tributaries to Howe Creek designated by NCDOT as BDITCH1. Old Topsail Creek and Nixon's Creek are designated Commercial Shellfishing/High Quality Waters (SA; HQW). Tributaries to these streams include those designated by NCDOT as NSA, NSF, NDITCH1 and ZTRIB1. The SDEIS does not quantify the impacts to ORW or SA/HQW or describe how impacts to these aquatic resources were avoided and minimized.

A conceptual compensatory mitigation plan for unavoidable impacts to jurisdictional waters is not provided in the SDEIS. Similar information from the DEIS is included on page 5-20 of the SDEIS (i.e., On-site mitigation opportunities being investigated by the NCDOT and the balance of impacts will be requested through the NC Ecosystem Enhancement Program – NCEEP). Considering the magnitude and intensity of the jurisdictional impacts (i.e., approximately 265 acres and 23,722 linear feet), the FEIS should provide a mitigation plan for the proposed project that is compliant with the 2008 final mitigation rule.

Other Natural Resources Impacts

The original M1+E-H alternative in the DEIS included 9.6 acres of impact to High Quality Waters Watershed (HQW, ORW, WS or Critical Areas). The M1+E-H with Option 6TR (Preferred) and service roads the impact has more than doubled at 20.72 acres of impact. Similarly, 100-Year Floodplain and Floodway impacts went from 11.73 acres from the DEIS (and LEDPA) to 28.69 acres for the M1+E-H with Option 6TR (more than double). The Preferred M1+E-H with Option 6TR with service roads increased the 100-Year Floodplain and Floodway impacts to 33.08 acres. Table S-1 in the SDEIS does not provide a breakdown of the 20.09 acres of impacts to HQW, ORW or Water Supply protected or critical areas.

Terrestrial forest impacts increased from the DEIS from 512.12 acres to 521.59 acres for the preferred M1+E-H with Option 6TR alternative. The service roads will contribute an additional 31.39 acres to total 552.98 acres (0.84 of a square mile) for M1+E-H with Option 6TR with service roads.

The preferred alternative M1+E-H with Option 6TR is anticipated to impact 4.41 acres of Natural Heritage Program Significant Natural Heritage Areas (NHP-SNHA) and Wetland Mitigation Sites that were created and preserved by the NCDOT to address compensatory mitigation needs for the I-140/US 17 Wilmington Bypass project. The impact was reduced by the transportation agencies from the DEIS stage by 0.02 acres

The proposed project is expected to 'take' 1 cluster of the Federally-protected endangered species Red-Cockaded Woodpecker (RCW). The transportation agencies revised the original LEDPA design of the northern interchange to potentially avoid an additional RCW 'take' (Page 5-22). As stated in EPA's letter on the DEIS, EPA defers to the USFWS (and NCWRC) on matters pertaining to Section 7 of the Endangered Species Act (ESA). EPA is requesting copies

of the Biological Assessment and Biological Opinion upon their issuance for NEPA and Clean Water Act Section 404 documentation purposes.

Human Resources Impacts

Residential and business relocations were significantly reduced by NCDOT and USACE avoidance and minimization measures from the DEIS M1+E-H LEDPA to the M1+E-H with Option 6TR (Preferred) alternative from 61 and 84 vs. 53 and 39, respectively. Residential relocations (displacements) were reduced by more than 13%. Business relocations have been reduced by more than 53%. EPA acknowledges that 4 non-profits were broken out from the DEIS business relocations to a separate category in Table S-1. EPA recognizes that these numbers are different than those presented in Table 2 of the SDEIS and was presented to the Merger team at the May 2012 LEDPA meeting. Table 2 shows that there were 64 residences, 76 businesses and 5 non-profits for M1+E-H (DEIS DSA and LEDPA). NCDOT and USACE may wish to discuss in the FEIS why similar avoidance and minimization efforts were not fully employed for other DSAs that were considered in the DEIS in comparison to the M1+E-H LEDPA and M1+E-H with Option 6TR alternative.

Table S-1 indicates that the LEDPA M1+E-H has 0 impacts to archeological sites. However, there is a note for M1+E-H option 6TR (Preferred), service roads and M1+E-H option 6TR with service roads that archeological surveys are underway and will not be completed or presented until the FEIS. However, Project Commitment #1, page 1 of 4 states that a National Register eligible archeological site was identified (31PD344**) for M1+E-H option 6TR (Preferred) and that an MOU between the USACE, SHPO and NCDOT may be required outlining the mitigation measures for the adverse effect to the site. The information contained in the SDEIS is inconsistent and should be clearly presented and corrected in the FEIS. We defer to the SHPO if a Memorandum of Agreement (MOA) between the USACE, SHPO and NCDOT is required for this archeological site in order to address the mitigation measures..

The USACE is required to address compliance with Section 106 of the National Historic Preservation Act for the adverse effect on the National Register-eligible Mount Ararat AME Church (Pages S-6 and 5-12). An additional MOA between the USACE, SHPO and NCDOT is required outlining mitigation measures for the adverse effect. This unresolved Section 106 issue is not identified in the Project Commitments ('Green Sheets').

Noise receptor impacts have not been updated in the SDEIS. A note is contained in Table S-1 that impacted noise receptors will be evaluated in the final design for the project for M1+E-H option 6TR (Preferred), service roads and M1+E-H option 6TR with service roads. DEIS impacts showed 257 impacted noise receptors for M1+E-H (Tables S-1 and 2). A noise receptor impact comparison for the other DSAs was not conducted in the SDEIS.

The proposed project is expected to impact the Topsail High School wastewater package treatment plant. In addition, the new project design for the northern interchange also impacts the Pender County Recycling Center adjacent to Topsail schools. The new design used reduced design criteria and avoided the water tower located along US 17 adjacent to the Topsail schools. The SDEIS does not indicate how impacts to either the wastewater package treatment plant or

the Pender County Recycling Center will be mitigated for and the potential timing of any actions associated with these mitigation efforts. It is not clear in the SDEIS what comprises the 4 non-profit relocations (Table 7) and if these impacted community facilities are included in this total for the M1+E-H option 6TR (preferred) Alternative.

As with noise receptor impacts, the SDEIS did not provide an update to impacts to prime farmlands which for M1+E-H preferred from the DEIS was approximately 68 acres (The highest impact to prime farmlands of the alternatives considered under the LEDPA). As stated in Table S-1, prime farmland impacts will be updated in the FEIS for M1+E-H option 6TR (preferred). Impacts to prime farmlands from the proposed 5.2 miles of service roads are also not identified.

The proposed preferred alternative (M1+E-H with option 6TR) includes impacts to 3 cemeteries and 5 potential UST/Hazardous material sites.

Other Outstanding Issues

The SDEIS indicates that the issue of conservation areas in the project study are unchanged and refers the reader several sections in the DEIS, including the discussions concerning indirect and cumulative effects related to development in Section 4.6 of the DEIS. The NCDOT and USACE now propose a new interchange north of Topsail High School and in close proximity to Holly Shelter Gamelands and other large undeveloped tracts of wetlands and woodlands being utilized by RCW and other wildlife species. This proposed interchange also impacts approximately 20 acres of wetlands. Indirect impacts to water quality can be expected from highway runoff into adjacent remaining wetlands (e.g., PD-38, MWA). It is also contrary to numerous prior development activities in this area of coastal N.C. that a new interchange did not induce additional development in and around a new access point so close to an existing US highway. EPA requests that a full indirect and cumulative effects analysis be prepared for this proposed project and provided in the FEIS.

It is unclear from the SDEIS if the USACE supports the NCDOT's M1+E-H option 6TR alternative (preferred) and if this alternative is considered to be the new LEDPA. EPA requests that the FEIS provide clarification regarding statements in the SDEIS that the original M1+E-H alternative will be the LEDPA if RCW foraging habitat 'ceases to exist' at the time of permitting. The FEIS should identify the LEDPA and the quantified impacts to all human and natural environment resources from the proposed project. The NCDOT proposes to issue a State Record of Decision (SROD) after the FEIS. EPA requests a copy of the State ROD upon its issuance.

Attachment B
Summary of EPA's Merger Process Issues
Supplemental Draft Environmental Impact Statement
US 17, Hampstead Bypass and Military Cutoff Road Extension, New Hanover and Pender
Counties, TIP Nos.: R-3300 and U-4751

Summary

As a Partnering Agency to the 2005 NCDOT/USACE/FHWA/NCDENR NEPA/Section 404 Merger Process Memorandum of Understanding (MOU), EPA has been an active participant in the multi-agency, collaborative process. EPA's Merger Team representative conditionally concurred on the LEDPA (M1) for U-4751 due to potential direct impacts to the Cape Fear Public Utility Authority's wellheads and after assurances was provided that these impacts could be avoided. EPA did not concur on Alternative E-H as the LEDPA for R-3300. EPA has further abstained on CP 4A, avoidance and minimization for R-3300 (The EPA abstention briefs are included in the appendix to the SDEIS). Furthermore, many of EPA's detailed comments on the DEIS were not addressed in CP 4A meetings or the SDEIS and are being deferred to the FEIS.

EPA's Merger team representative has continued concerns over the NEPA/Section 404 Merger team process and the opportunities to problem-solve as a team and fully evaluate detailed environmental issues (e.g., the location of all residential and business relocations for DSA U and the specific design assumptions being used for that alternative). These concerns have become much clearer since NCDOT was able to avoid 13% and 59% of the residential and business relocations, respectively, following the LEDPA meeting for alternative M1+E-H. These concerns are further highlighted by the recent meeting scheduled with the NCEEP concerning compensatory mitigation but that the NCDOT has refused to schedule a follow-up meeting that fully assesses the LEDPA M1+E-H compared to M1+E-H option 6TR with service roads and other DSAs (e.g., Alternative U) that were eliminated as the LEDPA. Currently accepted 'CP 4A' measures such as 3:1 side slopes in jurisdictional areas is expected by the EPA Merger team representative to be brought back for revisions in the future due to NCDOT's ultimate desire to raise the grade of the new multi-lane facility by 4 to 6 feet and avoid the use of reportedly 'unsafe' guardrails. This 'late' process issue has come up after CP 4A on numerous coastal highway projects in the last several years. Ultimately, the USACE and other Merger team agencies (except EPA) have agreed to these post-CP 4A design changes and it has resulted in additional wetland and stream impacts.

The USACE is a project proponent and has signed the DEIS and SDEIS as the Lead Federal Agency under NEPA. The USACE is also the Merger Team Project Leader and the primary Federal permitting agency. The USACE has signed the LEDPA concurrence form and had the Merger team signatures on the LEDPA prior to the discovery of a new interchange, constructing a 6-lane facility instead of 4 lanes, and the need for additional service roads. All of these potential changes to the original M1+E-H alternative resulted in additional and substantial jurisdictional impacts. For this reason, EPA's Merger Team representative abstained on CP 4A

and requested that a SDEIS be considered by the transportation agencies. The final LEDPA selection process should be clarified in light of the statement on Page 4-5 concerning the selection by the USACE of either M1+E-H with Option 6TR or the original M1+E-H as the future permitted LEDPA.

There are also unresolved issues concerning endangered species and EPA is requesting that the Merger team be kept informed as to the potential resolution of issues concerning the RCW and other Federally-protected species.